



PATENT  
Attorney Docket No. A-66566-3/RMS/RMK/SPL  
Attorney File No.: 463037-00152

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

BLACKBURN *et al.*

Serial No. 09/440,371

Filed: November 12, 1999

For: *Binding Acceleration  
Techniques For the Detection of  
Analytes*

Art Unit: 1753

Examiner: Alex S. Noguerola

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Date: September 17, 2004

Signature: *[Signature]*  
Brent Vonchard

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
AND  
STATEMENT OF RELATEDNESS

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/8A. Copies of these references are enclosed.

Further, in accordance with the provisions of 37 C.F.R. § 1.98(a)(3) and MPEP § 609(III)(A)(3), Applicants submits that reference no. B1 and B9 are not in the English language and direct the Examiner's attention to the English language abstract of same enclosed herewith for a concise statement as to its relevance.

09/22/2004 NMEKONEN 00000137 09440371

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180.00 DP

09/22/2004 NRDCH01 00000017 09440371

01 FC:1806 180.00 DP

Further, in satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and as required by M.P.E.P. § 2001.06(b), Applicant notes that the present application is related to the following pending patent applications:

1. U.S.S.N. 09/520,477, filed March 8, 2000; U.S.S.N. 09/712,792, filed November 13, 2000; U.S.S.N. 10/823,503, filed April 12, 2004;
2. U.S.S.N. 08/873,978, filed June 12, 1997; U.S.S.N. 09/557,577, filed April 21, 2000; U.S.S.N. 10/081,936, filed February 20, 2000; U.S.S.N. 10/236,481, filed September 5, 2002;
3. U.S.S.N. 08/873,597, filed June 12, 1997; U.S.S.N. 10/241,376, filed September 11, 2002;
4. U.S.S.N. 09/096,593, filed June 12, 1998;
5. U.S.S.N. 09/841,809, filed April 24, 2001;
6. U.S.S.N. 10/714,489, filed November 14, 2003;
7. U.S.S.N. 09/135,183, filed August 17, 1998;
8. U.S.S.N. 09/452,277, filed February 3, 1999;
9. U.S.S.N. 10/016,416, filed December 10, 2001;
10. U.S.S.N. 09/295,691, filed April 21, 1999;
11. U.S.S.N. 09/472,657, filed December 27, 1999; U.S.S.N. 10/697,908, filed October 29, 2003;
12. U.S.S.N. 09/238,351, filed January 27, 1999; U.S.S.N. 10/746,903, filed December 23, 2003;
13. U.S.S.N. 09/245,105, filed January 27, 1999; and

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Filed: November 12, 1999

14. U.S.S.N. 09/866,067, filed May 23, 2001; U.S.S.N. 10/279,742, filed  
October 23, 2002; U.S.S.N. 10/636,371, August 7, 2003;

Nothing herein shall constitute an admission concerning the contents of any of the  
cited references, nor shall the inclusion of a reference herein be considered an admission  
that the reference constitutes prior art against the invention claimed in the above-  
identified application. Submission of the present document shall not be construed as an  
admission that a search has been made or that better art does not exist.

Pursuant to 37 C.F.R. §1.97(c), enclosed is a check in the amount of \$180.00 as  
set forth in 37 C.F.R. §1.17(p). While no further fee is believed to be due, if this belief is  
in error, the Commissioner is authorized to charge any additional fees which may be  
required, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No.  
463037-00152 (A-66566-3/RMS/RMK/SPL)).

Please direct further questions in connection with this Application to the  
undersigned at (415) 781-1989.

Respectfully submitted,  
DORSEY & WHITNEY LLP

Dated: 9/17/04  
**Customer No.: 32940**  
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By: 

Steve P. Lendaris, Reg. No. 53,202 for  
Robin M. Silva, Reg. No. 38,304

*Filed Under 37 C.F.R. § 1.34(a)*

Attachments: Form SB/08/A-B, substitute for Form PTO-1449  
79 cited references



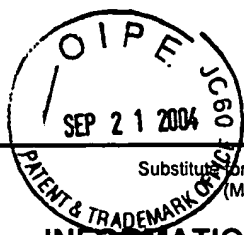
<b>Substitute for form 1449A/PTO (Modified)</b> <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	09/440,371	
			Filing Date	November 12, 1999	
			First Named Inventor	BLACKBURN, Gary	
			Art Unit	1753	
			Examiner Name	Noguerola, Alex S.	
Sheet	1	of	4	Attorney Docket Number	A-66566-3/RMS/RMK/SPL (463037-00152)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	4,908,319	03-13-1990	Smyczek et al.	
	A2	5,038,852	08-13-1991	Johnson et al.	
	A3	5,100,775	03-31-1992	Smyczek et al.	
	A4	5,126,022	06-30-1992	Soane et al.	
	A5	5,126,034	06-30-1992	Carter et al.	
	A6	5,147,607	09-15-1992	Mochida	
	A7	5,187,096	02-16-1993	Giaever et al.	
	A8	5,192,412	03-09-1993	Kambara et al.	
	A9	5,192,507	03-09-1993	Taylor et al.	
	A10	5,200,051	04-06-1993	Cozzette et al.	
	A11	5,296,375	03-22-1994	Kricka et al.	
	A12	5,304,487	04-19-1994	Wilding et al.	
	A13	5,320,808	06-14-1994	Holen et al.	
	A14	5,360,741	11-01-1994	Hunnell	
	A15	5,486,335	01-23-1996	Wilding et al.	
	A16	5,498,392	03-12-1996	Wilding et al.	
	A17	5,500,071	03-19-1996	Kaltenbach et al.	
	A18	5,519,635	05-21-1996	Miyake et al.	
	A19	5,545,531	08-13-1996	Rava et al.	
	A20	5,585,069	12-17-1996	Zanzucchi et al.	
	A21	5,587,128	12-24-1996	Wilding et al.	
	A22	5,589,136	12-31-1996	Northup et al.	
	A23	5,593,838	01-14-1997	Zanzucchi et al.	
	A24	5,595,712	01-21-1997	Harbster et al.	
	A25	5,603,351	02-18-1997	Cherukuri et al.	
	A26	5,605,662	02-25-1997	Heller et al.	
	A27	5,631,734	05-20-1997	Stern et al.	
	A28	5,632,876	05-27-1997	Zanzucchi et al.	
	A29	5,632,957	05-27-1997	Heller et al.	
	A30	5,635,358	06-03-1997	Wilding et al.	
	A31	5,637,469	06-10-1997	Wilding et al.	
	A32	5,643,738	07-01-1997	Zanzucchi et al.	

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.  
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<b>Substitute for form 1449/PTO (Modified)</b> <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
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			Examiner Name	Noguerola, Alex S.	
Sheet	2	of	4	Attorney Docket Number	A-66566-3/RMS/RMK/SPL (463037-00152)

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A33	5,681,484	10-28-1997	Zanzucchi et al.	
	A34	5,694,932	12-09-1997	Michel	
	A35	5,716,825	02-10-1998	Hancock et al.	
	A36	5,726,026	03-10-1998	Wilding et al.	
	A37	5,741,462	04-21-1998	Nova et al.	
	A38	5,750,015	05-12-1998	Soane et al.	
	A39	5,755,942	05-26-1998	Zanzucchi et al.	
	A40	5,770,029	06-23-1998	Nelson et al.	

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B1	DE 197 25 190	12-17-1998	Innova GmbH		
	B2	EP 0 213 825 A2	03-11-1987	Molecular Devices Corp		
	B3	EP 0 637 996 B2	07-23-1997	The Trustees of the University of Pennsylvania		
	B4	EP 0 637 998 B1	07-31-1996	The Trustees of the University of Pennsylvania		
	B5	EP 0 854 362 A2	07-22-1998	Japan Science & Technology Corp		
	B6	EP 0 859 230 A1	08-19-1998	Cranfield University		
	B7	EP 0 870 541 A2	10-14-1998	Eastman Kodak Co.		
	B8	EP 0 969 083 A1	01-05-2000	Olympus Optical Co. Ltd.		
	B9	JP 11-183437 A	07-01-1999	Shimadzu Corp.		
	B10	WO 93/22053 A1	11-11-1993	The Trustees of the University of Pennsylvania		
	B11	WO 96/15450 A1	05-23-1996	David Sarnoff Research Center		
	B12	WO 96/15576 A1	05-23-1996	David Sarnoff Research Center		
	B13	WO 96/39252 A1	12-12-1996	David Sarnoff Research Center		
	B14	WO 97/12030 A1	04-03-1997	Nanogen, Inc.		
	B15	WO 97/16561 A1	05-09-1997	David Sarnoff Research Center		
	B16	WO 97/27324 A1	07-31-1997	David Sarnoff Research Center		

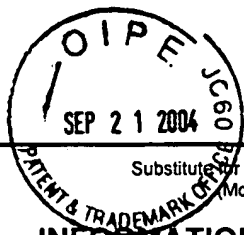
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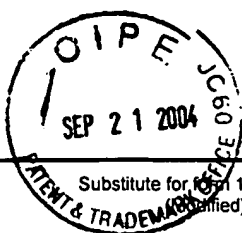
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	B17	WO 97/36681 A1	10-09-1997	Perkin Elmer Corp.		
	B18	WO 97/43629 A1	11-20-1997	Sarnoff Corporation		
	B19	WO 98/01758 A1	01-15-1998	Nanogen, Inc.		
	B20	WO 98/05424 A1	02-12-1998	Caliper Technologies Corp.		
	B21	WO 98/12539 A1	03-26-1998	Meso Scale Technologies, LLC		
	B22	WO 98/13683 A1	04-02-1998	Sarnoff Corporation		
	B23	WO 98/15893 A1	04-16-1998	Advanced Risc Mach Ltd.		

NON PATENT LITERATURE DOCUMENTS			
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	C1	BECKER, H., et al., "Microfluidic Manifolds by Polymer Hot Embossing for $\mu$ -TAS Applications," <i>Micro Total Analysis Systems '98 Conference, Proc. <math>\mu</math>-TAS '98</i> , pp. 253-256, Banff, British Columbia, CA (Oct. 13 - 16, 1998).	
	C2	BELGRADER, P., et al., "Rapid pathogen detection using a microchip PCR array instrument," <i>Clin. Chem.</i> 10(44):2191-2194 (1998).	
	C3	JOHNSTON, D., et al., "Cyclic Voltammetry: Study of Polynucleotide Binding and Oxidation by Metal Complexes Homogeneous Electron-Transfer Kinetics," <i>J. Phys. Chem.</i> 100(32):13837-13843 (Aug. 1996).	
	C4	KOLB, J., et al., "Small-Scale Acoustic Streaming in Liquids," <i>J. Acoustics Soc. Am.</i> 28(6):1237-1242 (1956).	
	C5	LECKBAND, D., et al., "Interactions Between Nucleotide Binding sites on Chloroplast coupling Factor One During ATP Hydrolysis," <i>Biochemistry</i> 26(8):2306-2312 (Apr. 1987).	
	C6	LEE, L.P., et al., "Key Elements of a transparent teflon® microfluidic system," <i>Micro Total Analysis Systems '98 Conference, Proc. <math>\mu</math>-TAS '98</i> , pp. 245-248, Banff, British Columbia, CA (Oct. 13 - 16, 1998).	
	C7	MIKKELSEN, S., "Electrochemical Biosensors for DNA Sequence Detection," <i>Electroanalysis</i> 8(1):15-19 (1996).	
	C8	MORONEY, R.M., et al., "Ultrasonically Induced Microtransport," <i>Proc. IEEE Micro Electro Mechanical Sys.: An Investigation of Micro Structures, Sensors, Actuators, Machines and Robots</i> , pp. 227-282, Nara, JP (Jan. 30 - Feb. 2, 1991).	
	C9	NEDERLOF, P.M., et al., "Quantification of fluorescence in situ hybridization signal by image cytometry," <i>Cytometry</i> 13(8):846-852 (1992).	
	C10	NORTHRUP, M., et al., "A Miniature analytical instrument for nucleic acids based on micromachined silicon reaction chambers," <i>Anal. Chem.</i> 70(1):918-922 (Mar. 1998).	
	C11	ROONEY, J.A., "Shear as a Mechanism for Sonically Induced Biological Effects," <i>J. Acoustics Soc. Am.</i> 52(6):1718-1724 (1972).	
	C12	SHAW, T., et al., "Active-Pixel-Sensor Digital Camera on a Single Chip," <i>NASA Tech Briefs</i> 420:44-46 (1998).	

Examiner Signature	Date Considered
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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>4</sup>
	C13	WANG, J., et al., "Peptide Nucleic Acid Probes for Sequence-Specific DNA Biosensors," <i>J. Am. Chem. Soc.</i> 118(33):7667-7670 (Aug. 1996).	
	C14	WASHIZU, M., et al., "Applications of Electrostatic Stretch-and-Positioning of DNA," <i>IEEE Trans. Ind. Appl.</i> 31(3):447-457 (May - Jun. 1995).	
	C15	WEBSTER, J.R., et al., "An Inexpensive Plastic Technology for Microfabricated Capillary Electrophoresis Chips," <i>Micro Total Analysis Systems '98 Conference, Proc. μ-TAS '98</i> , pp. 249-252, Banff, British Columbia, CA (Oct. 13 - 16, 1998).	
	C16	WILDING, P., et al., "PCR in a Silicon Microstructure," <i>Clin. Chem.</i> 40(9):1815-1818 (Sep. 1994).	

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